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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF INTERNAL AFFAIRS
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BUREAU OF TOPOGRAPHIC AND GEOLOGICAL SURVEY
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OIL & GAS DEVELOPMENT IN PENNSYLVANIA IN 1922.

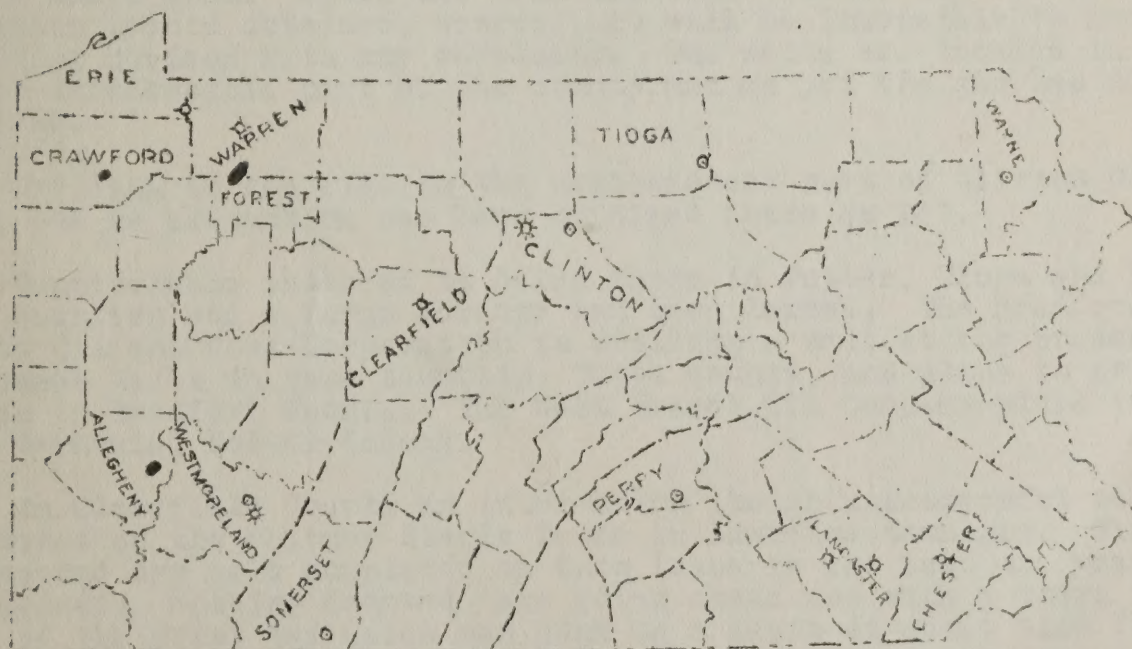
By

M. E. Johnson.

I. Wildcat operations in eastern counties.

Drilling operations were carried on in several of the eastern counties of the State in 1922 without success.

In Chester County the well put down near Lyndell, East Brandywine



EXPLANATION OF SYMBOLS USED

- | | |
|-----------------|------------|
| ○ Drilling well | ● Oil pool |
| ★ Gas well | ⊗ Dry hole |

Map showing location of wells and pools referred to in text.

township, by the Farmers Oil Company and which was reported two or three different times to have struck oil, has been abandoned at a depth of 1200 feet and all hopes given up of striking oil in paying quantities.

The same company had no better luck with its wells at Leaman Place and Lancaster in Lancaster County. The latter well was sunk to a depth of 2500 feet; that at Leaman Place 1280 feet. The company is now drilling another well near New Salem, York County, which is down about 1,000 feet at the present time (February 15, 1923).

A series of mishaps has delayed and hindered the drilling of the well in Tyrone township, Perry County, which the Cumberland-Perry Oil, Gas and Mineral Company started in 1921. At the present time the hole is down about 500 feet and operations have been suspended indefinitely.

In Wayne County a local company drilled a well 3 miles from Honesdale which on July 25th was down 950 feet. At that time no gas or oil had been found.

II. Other wildcat operations.

Considerable success attended the efforts of the Clinton Natural Gas and Oil Company which brought in a number of good gas wells in Leidy township, Clinton County. The largest of these wells is reported to have a capacity of 2,000,000 cubic feet and a rock pressure (Aug. 13th) of 960 pounds per square inch. Production was obtained in this well at a depth of 900 feet. As the well started in the Pocono formation, it is probable that the gas is from near the horizon of the Third sand. Until the well has been visited and the detailed formation record obtained, however, it will be impossible to name the producing horizon with any certainty. The wells are located in a rather inaccessible part of the county and as yet the gas has not been utilized.

Drilling is reported in the northeastern part of Clinton County also, but no production has been obtained there as yet.

Considerable interest is being shown in Potter, Tioga and Bradford counties and a large acreage has been leased. The Bradford County Oil and Coal Corporation is drilling a well at the present time at Chases Mills in Ward township, Tioga County, and plans to drill others in Bradford County. The West Branch Oil Company plans to drill near Germania, Potter County.

In Clearfield County an interesting though unsuccessful test was completed on the Whitmer-Steele lease in Lawrence township. This is the second dry hole completed on this lease in the last two years, but the backers, nothing daunted, are going ahead now with a third test. Each of the first two holes was sunk to a depth of about 3150 feet and traces of both oil and gas were found in them. The wells started almost at the base of the Pottsville formation and hence tested out all known producing sands to a depth of 4200 feet below the horizon of the Pittsburgh coal.

In Indiana County efforts to extend the producing territory toward the east met with little success. Most of the wells drilled were dusters or small gassers.

Perhaps the most interesting test well in all Pennsylvania is the one being drilled near McCance, Ligonier township, Westmoreland County, by the Peoples Natural Gas Company on the Seger Bros. property. When last reported (Jan. 28, 1923) this well was drilling at a depth of 6866 feet or about 45 feet below the depth at which gas was encountered in their first deep test in this territory. It was expected that pay sand would be encountered at less depth in the present test than in their first test because of its location on the apex of the Chestnut Ridge anticline; but it is possible that an unconformity may exist which would nullify the slight increase in elevation of the outcropping rocks. A third deep well is being sunk near their first well on the Booth and Flynn property and this well is now (Jan. 28th) down more than 6300 feet.

In Somerset County the Cumberland Oil Company, Inc., is preparing to drill a deep test well on the Noah Lint Heirs farm in Greenville township.

Wildcat operations in Erie and Warren counties were almost uniformly unsuccessful. North of Corry two wells were sunk on the Watrous farm, the last one to a depth of 1500 feet; and both were dusters. A well within the city limits on the Thomas Green property was equally unsuccessful. At Youngsville, Broken Straw township, Warren County, the Star Oil Company drilled their well to a depth of 5035 feet before giving up the hole as a duster. The Medina sand was found at a depth of 4537 but proved barren of oil and gas. An interesting thing about this hole is that it contains only 420 feet of casing, the hole being open below that depth.

Oil is obtained from several small pumping wells drilled by the Neason Hill Oil and Gas Company on the Eugene DeVore farm about three miles south of Meadville, Crawford County. The wells are shallow (about 550 feet deep) and hence cheaply drilled. There is enough gas with the oil to provide power and heat for drilling other wells.

III. Operations in previously developed territory.

Drilling in proven territory developed little of interest except at two places. The largest well of the year was brought in by the T. W. Phillips Gas and Oil Company on the Thomas E. Hallissee farm in Plum township, Allegheny County. This well was reported to have an initial production of 1400 bbls. a day of high-gravity oil from the Hundred Foot sand and startled operators into an active drilling campaign in this old and declining pool. Unfortunately the well proved to be but a flash in the pan, other wells drilled nearby being either dusters or small pumpers. At the present time the "big well" on the Hallissee farm is not yielding one-twentieth of its original production.

Development was more successful near Tidioute, Warren County, where Charles Carnahan brought in the first gusher April 20, 1922. The Tidioute pool is in a region which was developed early in the history of oil production and until recently was thought to have been almost worked out. Carnahan's first well, however, found a prolific sand (called the Queen sand and probably to be correlated with the Clarendon sand) below the old producing sands (the Venango group) and it is this sand which has furnished all the production in the recent development. The top of the producing sand is about 750 feet below the top of the Third sand. "Pay" sand is about 10 feet thick. The biggest well, Carnahan's No. 3 Schoelkopf, was reported as having an initial production of 1350 bbls. of 47° Beaume' amber-colored oil. It is quite possible that this figure is larger than the actual production, but there is no doubt that many wells in this pool were brought in which had initial productions of over 300 bbls. a day. The pool has been closely drilled and in consequence there is now a rapid falling-off in production from new wells.

To date 115 wells have been drilled to the Queen sand. For the first 29 days of January, 1923, the average production of the pool was 1040 bbls. a day. The field has now been defined in every direction save one - the southwest. There is still the possibility of an extension in that direction. The field as developed at present has a length of about five miles, with a width of nearly three-quarters of a mile. To the east of the oil pool several large gas wells have been brought in on the Wheelock farm. The largest of these was reported to have an initial production of 10,000,000 cubic feet of wet gas. February 6, 1923 six wells in this eastward extension were reported to have a combined capacity of 20,000,000 cubic feet of gas a day. As yet no use has been made of this production.

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